CURRICULUM VITAE

Personal information

Dr. Lorenzo Maria Iozia

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Born in Rome, 08/04/1994

Italian nationality

Skills

Communication

Office suite

R programming

Graphic software

Manual skills

Languages

Italian

English

French

Hobby and interests

Environment

Music

Drawing

Creative writing

Tabletop games

Birds

Comedy

Profile

Extrovert, optimistic, creative. My experience in ecological studies matches with my interests for nature, environment, and science. I worked with Professors Alessio Valletta, Loreto Rossi, Maria Letizia Costantini and Laura Varone from Sapienza University of Rome on four different projects and with Professor Adam Algar from University of Nottingham (now affiliated with Lakehead University).

Education and training

2014 – 2016	**Bachelor's degree in Biological Science at Sapienza University of Rome**
	110/110 *cum laude*
	I worked under the supervision of Professor Alessio Valletta for my experimental thesis "Effect of salicylic acid and chitosan oligosaccharides on xanthone biosynthesis in *in vitro* root cultures of *Hypericum perforatum* L."
2017 – 2018	**Master's degree in Ecobiology at Sapienza University of Rome**
	110/110 *cum laude*
	I worked under the supervision of Professors Loreto Rossi, Maria Letizia Costantini and Dr. Edoardo Calizza on my experimental thesis "Variations in the isotopic niche of the Adélie penguin (*Pygoscelis adeliae* Hombron & Jacquinot, 1841) and the Emperor penguin (*Aptenodytes forsteri* Gray, 1844) in relationship to ice dynamics."
2018	**Scholarship to support laboratory teaching in Botany at Sapienza University of Rome**
	This project consisted in providing support for laboratory lessons in Botany.
2018	**Course in Cultural Anthropology and Course in Developmental Psychology and Educational Psychology at Sapienza University of Rome**
	These two exams were part of the 24 formative credits required to teach in Italy. I passed the first one with a score of 28/30 and the second with a score of 30/30 with honor.
2019	**Erasmus post laurea at University of Nottingham**
	The aim of this project was to research bioclimatic niche under the supervision of Professor Adam Algar.
2019 - 2020	**Torno Subito - a Programme promoted by the Regione Lazio- Department of Education, Research, School Education and Universities at University of Nottingham and Sapienza University of Rome**
	This project was funded the ROP1 Lazio ESF2 2014-2020 Axis III "Education and Training", and it aimed to continue the research I started during my Erasmus, further developing my knowledge of biogeography and the climatic niche with Professors Adam Algar at University of Nottingham and Laura Varone at Sapienza University of Rome.
2020–ongoing	**PhD in Environmental and Evolutionary Biology – Ecological Sciences at Sapienza University of Rome**
	This project is under the supervision of Professor Laura Varone, and it aims at studying intraspecific variability of Mediterranean woody species trait spectra in response to drought. I'm currently working on this project.

Publications:

Shared co-first authorship	**Valletta, A., Iozia, L. M., & Leonelli, F. (2021). Impact of Environmental Factors on Stilbene Biosynthesis. Plants, 10(1), 90.**

Foreign Languages certificates and knowledge

2011 **IELTS at Trinity College London**

Grade 7, level 1 in ESOL international. B2.1 of the CEFR *with merit*

I took this exam during high school, before moving to work in the states for a period of two months as an environmental volunteer. Since then I kept improving my fluency with the English language.

2019 **OLS language assessment**

C2 - broken down in Grammar B2, Vocabulary C2, Reading C2, Listening C2

I took this exam at the beginning of my Erasmus. Since then, I spent 9 months working in England with Professor Adam Algar, further enhancing my ability to communicate in English.

Other languages:

I can understand French and Spanish, as I learned the basics of those languages before my diploma.

Computer skills

I am familiar and competent in the use of the Microsoft Office suite (Word, Excel, Powerpoint, etc.) and of the Adobe suite (Photoshop, Premiere pro, Acrobat DC, Animate), the first focused in the production of documents, spreadsheets and presentations; the second focused at improving graphics and exposition with the production of multimedia contents.
I am competent in the use of statistical software, such as R and PAST. I made an extensive use of R during my thesis, Erasmus and TornoSubito projects. I can produce modular scripts for R in order to conduct statistical analyses on large databases, a skill I gained as part of my experience with biogeographical databases. I also possess some knowledge of Python.
I am familiar with remote sensing software such as Envi and Qgis, and I am trained to obtain and process satellite imagery from the main distribution sites.

During my studies I also learned to use the software MaxEnt, in order to obtain distribution models based on Ecological Niche Modelling.

As a hobbyist artist I became familiar with several graphic editing software (Photoshop, Illustrator, Autodesk Sketchbook, Blender), which I also used to produce some scientific illustrations such as the ones included in my thesis and the picture in chapter 13 of the book "Botanica e diversità vegetale", Pasqua-Abbate-Forni, edited by Piccin.

Teaching skills

My first teaching experience was providing support for laboratory lessons in Botany. I did this for my scholarship to support laboratory teaching, which involved preparing materials, aiding professors to provide support to students and helping students familiarize with laboratory equipment such as microscopes, slide preparations and dichotomous keys.
I further developed my teaching skills by following individual courses in Cultural Anthropology and Developmental Psychology and Educational Psychology at Sapienza University of Rome.

Volunteering

2012 **American Conservation Experience (ACE) at Flagstaff, Arizona**

This experience lasted two months, during which I took part in a series of projects at Grand Canyon and Inscription House to take care of invasive alien species and maintain pathways. Work used to last for a week during which we would live in tents on site and perform operations during the day. The biome was mainly desertic.

2014 – 2018 **Lega Italiana Protezione Uccelli (LIPU) at Centro Habitat Mediterraneo (CHM)**

This work consisted in assisting the naturalistic center to recover wildlife and protect the oasis. Work consisted in welcoming guests, rescuing wild birds, collecting data and maintaining structures.

Detailed description of previous research experience

2014 – 2016 Thesis work for bachelor's degree in Biological Science at Sapienza University of Rome

This work consisted in performing an elicitation experiment on *in vitro* root cultures of *Hypericum perforatum* L. I took part in the preparation of root cultures, in the elicitation with salicylic acid and chitosan oligosaccharides aided with a sonicator, in the extraction of xanthones with the use of a rotary evaporator and in the High Performance Liquid Chromatography (HPLC) to quantify total xanthones.

2017 – 2018 Thesis work for master's degree in Ecobiology at Sapienza University of Rome

This work consisted in studying how penguin's diet changes in relationship with ice dynamics. Biological samples were provided to Sapienza University of Rome as part of the XXXII PNRA (Piano Nazionale di Ricerca in Antartide) expedition. My work consisted in preparing samples and performing stable isotope analysis. Preparation consisted in freeze-drying, followed by pulverization with a ball-mill or by the use of a mortar, precision weighing of samples (in the order of micrograms) and elemental analysis with a continuous-flow Isotope-Ratio Mass Spectrometer (IRMS). I then performed statistical analyses which included analysis of variance, isotopic niche metrics and mixing models both on nitrogen and carbon. Samples used for my project consisted in penguin Guano, but during this experience I also handled marine vertebrates and invertebrates, isolating target tissues from fishes, starfishes, brittle stars, sea urchins, molluscs and krill.

2019 Erasmus post laurea at University of Nottingham

During my Erasmus I conducted a bibliographic research to establish the most common methods to measure the climatic niche. I built a well-organized database to keep track of bioclimatic variables, methodologies and mathematical analyses used in the last three years of literature to measure the climatic niche in an evolutionary context. From a practical point of view this work challenged me to develop my ability to gather and organize an extensive amount of data from literature, learning the basics to create and manage databases.

2019 – 2020 TornoSubito – a Programme promoted by the Regione Lazio – Department of Education, Research, School Education and Universities at University of Nottingham and Sapienza University of Rome

This project was the natural continuation of my Erasmus project. Once I gathered information on how the climatic niche was measured, I had to find out which way of measuring was the best. This work was divided in two phases, one at the University of Nottingham and one at Sapienza University of Rome. The most commonly used bioclimatic variables are 11 thermal and 8 pluviometric variables, which I tested by identifying the most correlated with physiological variables such as Critical Thermal maximums and minimums and Leaf Traits such as Leaf Dry Matter Content. This work had me mainly using R to subset the GlobTherm and TRY databases, obtain species coordinates from GBIF, clean up coordinates with the *CoordinateCleaner* package, obtain measures from the WorldClim bioclimatic layers, perform raster PCA, perform statistical analyses on measures such as analysis of variance and generalized linear modelling to identify the best measuring methodology. In this occasion I drastically improved my familiarity with R, learning to use loops and IF statements to automatize coordinate gathering, cleaning and measuring as well as using the program for statistical inference.